THE FARM INDEX

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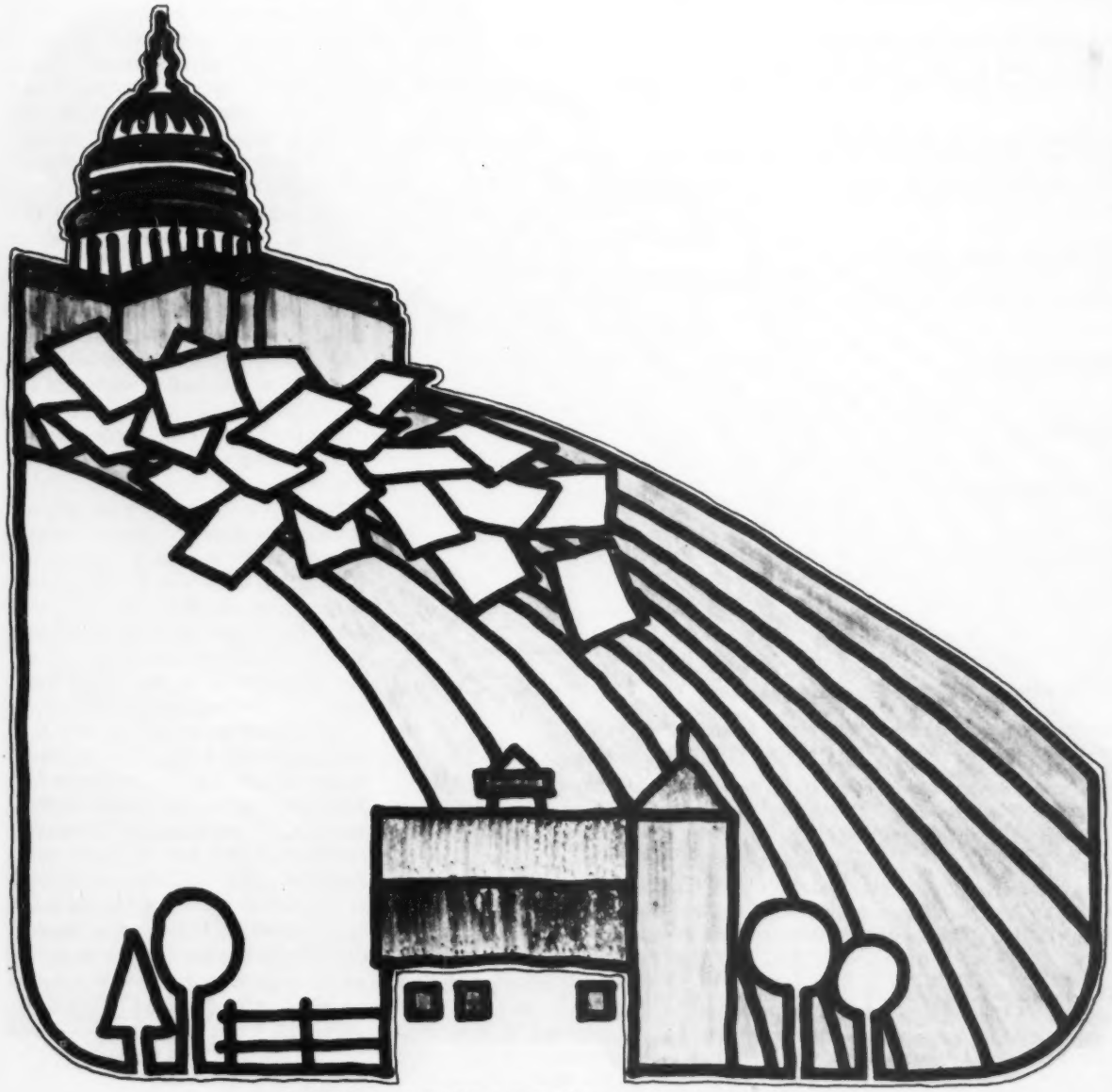

FARM PROBLEMS & PROGRAMS

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Outlook

Prospects for record crops this year continue good, despite some downward revisions from earlier estimates. Among major crops, only cotton output will shrink from 1974.

Livestock developments bear watching. Situation is in state of flux . . . producers face weighty decisions in the months ahead . . . whether to expand output or retrench . . . will impact on next year's food prices.

Pork producers have pretty much made up their minds about near-term plans. Production may remain below a year-earlier through mid-1976, based on recent farrowing intentions. Big worry of farmers is the profit risk connected with feeding high-cost corn to hogs to be marketed next year.

But cattle feeders are still on the fence . . . trying to decide whether to fill feedlots again after nearly 2 years of big money losses. Besides high grain prices, feeders are uncertain about future turns in fed cattle prices when slaughter bulges seasonally.

Total beef production might still set a record this fall, yet won't meet earlier predictions due to sharp reductions in slaughter weights and fewer fed cattle.

Poultry picture is looking up. Improved profits in recent months spurred broiler men to go heavier on chick placements and hatchings, and output gains should carry into first half 1976. Bigger production, though, won't pull down wholesale prices: they'll be bolstered by higher beef and pork prices relative to last year.

Retail food prices in the next few months should hold a fairly steady course. For the whole year they're expected to average around 9 percent above 1974, compared with rises of over 14 percent in both 1973 and 1974.

Modest price declines are in store at the meat counter but these will be largely offset by higher price tags for dairy products, eggs, and fishery items.

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FARM PROBLEMS & PROGRAMS

From the beginning, Government policies and programs have played a key role in agriculture, but the nature of that role has changed with the times.

The immigrants to the English colonies of the new world came to escape oppression and to get land of their own. They soon found they needed Government to help them secure and protect their farmland from speculators.

The first concern of farmers after the break with Britain was with laws on the settlement and distribution of Federal lands to the west.

Soon farmers called on the Government to provide needed services such as roads, rural free delivery of mail, and parcel post. There also was a great deal of agitation for assistance in research and education that resulted in the creation of the U.S. Department of Agriculture, the land-grant colleges, extension services, and the experiment stations (See R & D for Farms, May 1975 Farm Index).

Commercialization. After the Civil War, the growing commercialization of agriculture brought price and cost problems to the forefront. These reached disastrous proportions during the depressed 1930's, resulting in a series of agricultural adjustment programs which sought a cure through reduced production.

Today, the emphasis has again shifted. Reflecting the rapid growth in world demand for farm products, the programs of the 1970's put primary emphasis on maintaining or increasing production.

Price-cost problems became critical in the depression following the Civil

War. Agricultural unrest was widespread. Farmers joined together in the Grange movement to secure legislation regulating railroads and monopolies. Later, in the 1890's, the Populists called for inflation of the currency and loans on farm products.

Golden era. Economic recovery brought what is often nostalgically looked back on as the "golden era" of agriculture—the period from the late 1890's to World War I. Rapid industrialization and urbanization coming at a time when the expansion in agricultural production was leveling off pushed prices received by farmers up faster than their costs. Favorable prices and the lack of virgin land for development led to sharply increased land values.

Agriculture's period of peacetime prosperity was followed by an unprecedented period of wartime inflation. The Government exhorted farmers to produce more food to win the war. With the added incentive of high prices, they responded by plowing up some 40-million acres of land not cultivated before, and by buying more land and tractor-powered machinery for large-scale production.

Heavy mortgages. Farmland was heavily mortgaged to provide funds for the purchase of additional land and labor-saving machinery. But with farm product prices and land values soaring, increased mortgage debt caused little concern.

The index of farm prices rose from 100 in 1914 to 221 in 1919. Gross farm income rose from a general level of about $7.5 billion in 1910-14 to $17.7 billion in 1919. The value of all farmland and buildings rose from $35 billion in 1910 to $66 billion in 1920.

When the war boom broke in the fall of 1920, agricultural prices fell precipitously. But production costs, which also rose during the war, stayed high. Heavy fixed charges on farm debts and increasing taxes and freight rates became an intolerable burden. Caught in a disastrous cost-price squeeze while the rest of the Nation continued to prosper, wheat growers blamed speculators and the importation of low-cost Canadian wheat.

Wheat Owned by the Government*

Year	Mil. bushels
1940	2
1945	104
1950	328
1955	976
1960	1,195
1965	646
1970	301
1975	1

** Inventories of Commodity Credit Corporation on June 30, rounded to nearest million.*

Thwart speculators. The American Farm Bureau Federation and the National Grange maintained that price losses were due to "bear propaganda" or to "gambling in farm products." Acting on the belief that speculative manipulation was the cause of price declines, farmers organized crop withholding movements to thwart the speculators.

When wheat withholding actions proved unsuccessful, farmers organized cooperative marketing associations. These also failed, chiefly because they were based on too simple a diagnosis of the problem, and on a naive assumption that a farming industry made up of scattered, individualistic units could be operated like the large corporations of heavy industry.

The agricultural depression reflected fundamental changes in international relations and in the American economy. During World War I the U.S. had changed from a debtor to a creditor nation.

Debts and tariffs. Instead of sending our agricultural surpluses abroad to pay our debts to Europe, we were in the position of receiving surpluses from Europe in repayment for war debts. But higher tariffs were keeping out European goods at the same time we were demanding repayment of debts. The combination of debts and tariffs made it difficult for Europe to buy from us. European purchases were made possible only by a series of private loans.

The problem was compounded by the effort of European nations toward self-sufficiency in food. Tariff and quota barriers were raised to protect home food production, and in some cases, in retaliation against postwar increases in American tariffs. American farm products also had to compete with products from virgin low-cost land opened up during World War I in Canada, Australia, and Argentina.

Exports decline. As a result of these factors, agricultural exports declined from $4.1 billion in 1919 to $1.9 billion in 1922.

Shrinking export markets were accompanied by declining domestic demand due to the sharp drop in immigration resulting from postwar immigration laws. Changes in American eating habits also cut the market for wheat producers. Per capita consumption dropped from 5.6 bushels when World War I started to 4.6 bushels during the 1920's.

The farmers' market was curtailed at a time when production reached new heights due to wartime expansion in cultivated acres and to technological improvements.

Replacement of horsepower by machine power alone released some 35 million acres of land for the production of crops for market.

Higher farm tariffs were the first legislative remedy to redress the lack of balance between agriculture and industry. When these failed, new solutions were sought.

The Bloc is built. Heading the drive for new legislation was the Farm Bloc organized in Congress on May 9, 1921. The Bloc first concentrated on regulatory legislation affecting grain exchanges and packers and stockyards.

It also was instrumental in passing the Capper-Volstead Act which exempted farmers' cooperatives from the provisions of the Sherman Anti-Trust Law, authorized the War Finance Corporation to provide some assistance to agriculture, and established a Division of Cooperative Marketing in the Department of Agriculture in 1926.

USDA supported legislation sponsored by the Farm Bloc. The Department also began to concentrate on providing economic information and forecasts of prices and markets to farmers in the hope that adjustments by individual farmers in production and marketing would result in higher prices. National annual outlook conferences began in 1923.

Farm depression. Farmers' price and income problems persisted, despite these efforts. The continuing farm depression in the midst of industrial prosperity caught farmers in a serious cost-price squeeze and brought strong pressure for Government intervention.

Many plans were proposed. But one developed by two farm machinery executives, who found that "you can't sell a plow to a busted customer," caught fire in the country. This was the McNary-Haugen plan. It was based on the concept that with Government help, farmers could sell their surplus abroad with the result that domestic prices would increase to a pre-war ratio between prices farmers received and the prices they had to pay.

The two-price plan was before Congress for 6 years. Secretary of Agriculture Henry C. Wallace favored the plan, calling it an attempt to secure "even handed justice for the farmer."

Coolidge vetoes. But his successor, Secretary William M. Jardine, and President Calvin Coolidge were adamantly opposed. Coolidge vetoed McNary-Haugen bills in 1927 and 1928.

The McNary-Haugen fight publicized and dramatized the farm problem. However, the plan was built on the delusion that an inexhaustible foreign market existed on which farm commodities could be dumped without fear of retaliation. It did not take into account the tremendous technological advances being made during the 1920's which would bring about greatly increased output. The McNary-Haugen plan had no provision to prevent its price-raising features from causing an increase in production.

After the defeat of the McNary-Haugen bills, the Administration turned to strengthening farmer cooperatives as a solution to the farm problem.

Federal Farm Board. The Agricultural Act of 1929 established the Federal Farm Board. The Board was given a revolving fund of $500,000 and directed to encourage orderly marketing of agricultural products

Cotton farmers in 1941 hear an Agriculture Adjustment Administration representative explain cotton programs.

President Franklin D. Roosevelt issues first check in 1933 to a farmer for reducing cotton production.

by making loans to cooperative marketing associations. The Act also provided for establishing stabilization corporations to control any surpluses that might arise.

Stabilization corporations purchased wheat and cotton but the disastrous decline in farm prices continued. The Board's failure resulted in its programs and advice being discredited. It was forced into an inactive role during its last year. By then the Great Depression of the 1930's was in full swing.

In its final report, on December 7, 1932, the Board wrote that ways must be found "to secure a better adjustment between the quantities produced and the needs of the market." It recommended that legislation be enacted which would "provide for regulating acreage or quantities sold or both."

Production control. The Federal Farm Board provided a striking demonstration that improved marketing mechanisms alone do not work when production is far in excess of effective domestic and foreign demand. The experience of the Farm Board was a step toward the development of production control.

Faced with immediate bankruptcy, some farmers felt they could not wait for new legislation being pushed by farm organizations in Congress. A National Farm Holiday Association pledged to withhold food from markets until prices reached costs of production. Violence erupted in some areas.

On January 25, 1933 the President of the American Farm Bureau Federation warned a Senate committee: "Unless something is done for the American farmer we will have revolution in the countryside within less than 12 months."

The AAA is passed. Congress responded by passing the Agricultural Adjustment Act of May 12, 1933, which authorized production control as the primary tool for raising farm prices and income.

The Act gave the Secretary of Agriculture authority to reduce acreage or production by voluntary agreement, to enter into marketing agreements with processors to control prices paid producers, and to license processors and others for the purpose of eliminating unfair trade practices. Farmers could receive rental or benefit payments, and the Department could spend money to expand markets or remove surpluses. These activities were to be financed by a processing tax.

The acreage reduction programs with their goal of raising farm prices toward parity (the relationship between farm prices and costs which prevailed in 1910-14) could not raise prices fast enough for the producers of cotton and corn. They demanded price fixing.

CCC loans. The Government responded by creating the Commodity Credit Corporation (CCC) in October 1933 which made immediate nonrecourse loans for these commodities. The CCC has been used to carry out many Government programs since.

Pressure from cotton and tobacco producers resulted in the introduction of compulsory marketing programs for these commodities in 1934.

Surplus disposal programs were initiated in October 1933 as an emergency supplement to the crop control programs. These were first carried out by the Federal Surplus Relief Corporation. They were financed by Section 32 of the August 1935 amendments to the Agricultural Adjustment Act which set aside 30 percent of the customs receipts for the removal of surplus farm products.

Today's Food Stamp, School Lunch, School Milk and other distribution programs developed from the early surplus disposal programs.

Import quotas. The August 1935 amendments also added Section 22 to allow the President to impose import quotas when he found, after investigation by the Tariff Commission, that

The Great Depression...Farm Bred & Farm Led

"I have 8 head of children and my wife. We work hard but I am not able to take care of them. I have children of school age . . . I am not able to school them. My family are in bad shape, they are naked and barefooted."—Letter to the Secretary of Agriculture, December 13, 1921.

"This fall not only will I lose my home and everything in it, but hundreds, perhaps thousands, will be in my condition, homeless. Unless the farmer gets 35 cents to 40 cents for his cotton, we will all be ruined . . ."
—Letter to President Harding, 1921.

The Great Depression enveloped the country in the late 1920's, but farmers felt the gloom and despair years before. In June and July of 1920 farm prices started to fall precipitously. Country banks and family-owned businesses in small towns began to sink into bankruptcy.

Synthetic prosperity. The cities, however, continued to bask in the glow of a synthetic prosperity until 1929 when the bottom dropped out of the world with the collapse of the stock market. Speculators jumped out of windows, joining the country bankers who committed suicide. The sickness of the countryside had spread to the cities. As a writer in the 1930's put it:

"In the fact that farmers were less and less able to buy the things that the people in the cities were making, lies the explanation of how one surplus caused another, until farmers were burning wheat while bread lines lengthened in the cities, until the fantastic spectacle of poverty in the midst of plenty traversed America like a dance of death."

Depression spreads. City workers who were on the streets because of the farmers' shrinking purchasing power were not the only ones to suffer from the critical crisis in agriculture. The inability of farmers to pay their debts jeopardized the savings of other Americans who had invested funds in banks and insurance companies. An alarming number of farm foreclosures were followed by large numbers of bank failures.

Taxes were delinquent, schools were closed, hoards of unemployed and hungry milled around in the cities or took to the roads. The well-fed felt threatened by the hungry, and planned routes of escape in the event of a strike or a revolution.

Militant farmers. Faced with a loss of homes and livelihood, some once prosperous farmers became militant and desperate and turned to violence. Pickets, barricades, and threats were used to keep food from markets. Grim-faced mobs converged to halt foreclosure sales, their determination signaled by pitch forks and nooses hanging from a tree.

Law enforcement officers, lawyers, judges, and prospective bidders were threatened and even manhandled. The president of the American Farm Bureau Federation warned, "Unless something is done for the farmer we will have revolution in the countryside within less than 12 months."

The desperation of the Depression is mirrored in the faces of families wandering, homeless, and jobless.

imports materially interfered with price support and adjustment programs. This authority has been used a number of times for dairy products and meat and occasionally for other commodities.

The Agricultural Adjustment Program was brought to an abrupt halt on January 6, 1936 by a decision of the Supreme Court which invalidated the production control provisions of the Agricultural Adjustment Act of 1933.

Soil conservation. The Soil Conservation and Domestic Allotment Act of February 29, 1936 attempted to reduce production of surplus crops by paying farmers to shift acreage from soil-depleting to soil-conserving crops. The Act encouraged conservation but failed to achieve the objective of reducing crop output.

The Agricultural Adjustment Act of 1938 combined the conservation program of the 1936 Act with new features designed to meet drought emergencies as well as price and income problems resulting from surplus production of farm products.

Marketing control was substituted for direct production control and authority was based on Congressional power to regulate interstate and foreign commerce. The new features included mandatory loans for some commodities, marketing quotas, referendums, crop insurance for wheat, parity payments, and the Ever-Normal Granary plan designed to protect consumers as well as farmers.

Crop insurance. A Government insurance program to protect wheat producers from the hazards of crop failure was launched on April 19, 1939. After a trial period, crop insurance was extended to other commodities.

The Government also moved to help farm people who were losing their homes through mortgage foreclosures during the Great Depression. The Federal land banks and Federal intermediate credit banks established under laws enacted in 1916 and 1923 were unable to meet the crisis. The Emergency Farm Mortgage Act of May 12, 1933, the Farm Credit Act of June 16, 1933, and the Federal Farm Mortgage Act of January 31, 1934 provided for emergency credit and for establishment of local production credit associations.

An independent Farm Credit Administration was set up on May 27, 1933 to administer the Acts. It became a part of USDA on July 1, 1939, and then became independent again in 1953.

Crucial supply. When the U.S. entered World War II in 1941, credit was an important production resource. The large stocks of wheat, cotton, and corn in the Ever-Normal Granary became a military reserve of crucial importance. Even before the Japanese attack at Pearl Harbor, the U.S. was supplying food to Great Britain and the U.S.S.R.

The Secretary of Agriculture called for increased production of many commodities in 1941, and Congress in the Steagall Amendment provided price support guarantees for many crops. The objective was to meet wartime needs and to insure that farmers shared in the prosperity that defense contracts with their guaranteed profits were bringing to industry.

Price support. Price support levels for the war crops and for basic commodities were raised to 90 percent of parity and higher. The price support guarantees remained in effect until December 31, 1948.

A War Food Administration working within USDA was established in 1943. Except for certain types of tobacco, acreage allotments and marketing quotas were discontinued by August 1943. Emphasis shifted to increased production for war requirements and postwar relief of devastated and famine areas.

Food prices in the U.S. were controlled and a number of foods were rationed. Farm machinery also was rationed, and fertilizers and insecticides and materials used for manufacturing farm equipment were under priority controls. Farm labor was recruited, trained, and assigned to areas where needed. Workers were

A farmer proudly holds up his ballot in the first national market quota referendum in 1941.

Out of the Dustbowl

On April 2, 1935, the afternoon sky suddenly darkened over Washington as a swirling cloud of dust blew in from 2,000 miles inland. For Hugh Bennett, who was testifying before the Senate when the storm appeared, the disaster of the Plains was a tragic vindication of his repeated warnings about soil erosion.

As head of USDA's Bureau of Soils, Bennett had long been an advocate of a permanent soil conservation program, arguing that erosion was a national menace demanding immediate action.

If Bennett had not swayed other officials before this, the sight of midwestern soil gritting in the teeth of eastern city dwellers was more than convincing. Twenty-five days later, Congress directed the Secretary of Agriculture to establish a Soil Conservation Service, which he did the same day. Bennett was named head of the new agency.

Prior to the eastward march of the dustbowl, erosion control had been approached as an unemployment relief measure. In 1933, the National Industrial Recovery Act authorized erosion projects as useful work.

When the NIRA program was enacted, Bennett was determined that no simple, mechanistic solution, such as terracing, should be adopted as the answer to every situation. To him, saving the land took precedence over all else. He urged an integrated attack against erosion, using all known soil protection techniques.

But he needed money to implement his plans. Earlier, $5 million from the Public Works Administration had been allocated to a soil conservation program to be carried out with relief labor by the Bureau of Agricultural Engineering. Through his efforts, the funds were allocated instead to the Department of the Interior, and Bennett was given a leave of absence from USDA to head up Interior's program.

At that time, many Agriculture officials viewed erosion control as a temporary, emergency project under the direction of the Public Works Administrator and the Interior Department. However, the Interior Secretary had other ideas. He set up the Soil Erosion Service within his department, and some time later President Roosevelt decided the service should be transferred to USDA.

It was drought that convinced Congress that erosion work should continue as a permanent program. After a series of dry years climaxed the Depression in the Great Plains, dust storms began moving eastward, prompting the legislators to establish the Soil Conservation Service as a permanent agency.

With Bennett at the helm, the new Soil Conservation Service greatly expanded Interior's old programs and encouraged active farmer participation.

Based on a Texas law aimed at wind erosion, model legislation was drafted setting up soil conservation districts as governmental subdivisions. Similar laws were later adopted by the States upon a majority vote of landowners and land operators.

Through this local network, the Soil Conservation Service has conducted its program for three decades. Today, more than 90 percent of the nation's farmland is included in self-governed soil conservation districts.

[Based on special material from Wayne D. Rasmussen, National Economic Analysis Division.]

brought in from Mexico and other countries. A Combined Food Board was established to allocate food supplies among nations cooperating in the war.

Agricultural Act of 1948. Before the wartime price support program expired, the Agricultural Act of 1948 was enacted. The Act, a compromise measure, provided 90 percent price support levels for a number of commodities through December 31, 1949, and a sliding scale of price supports thereafter.

However, the Agricultural Act of 1949 continued support prices for basic commodities at 90 percent of parity for 1950. They were to be between 80 and 90 percent for 1951 crops and between 75 and 90 percent of parity for the 1952 and succeeding crops. These laws began eliminating the requirements for price supports for most nonbasic commodities.

With the outbreak of the Korean War in 1950, price supports for basic commodities were maintained at around 90 percent of parity under the national defense provisions of the Act of 1949 and under amendments to the Defense Production Act of 1952. The 1952 amendments extended the period of 90 percent parity supports for basic crops through the 1954 crop year.

Surpluses pile up. After the Korean War period large surpluses began to pile up again in the Ever-Normal Granary. A sharp rise in yields due to technological improvements raised production even though acreage was limited under production control programs.

The Agricultural Act of 1954 provided for "set asides" of 400 to 500 million bushels of wheat and 3 to 4 million bales of cotton. The set asides were to be excluded in the computation of price support levels, but were to be included in the computation of acreage allotments and marketing quotas.

The issue of flexible versus high-level price support, which emerged again after the Korean War, resulted in a series of compromises between Congress and the Administration. The Act of 1954 provided for flexibility in a narrow range from 82.5 to 90 percent for 1955 and 75 to 90 percent thereafter for basic commodities, except tobacco which remained at 90 percent.

Using surpluses. To relieve the build-up of surpluses, to assist developing countries, and to eventually build up new markets, Public Law 480 (PL 480) was passed on July 10, 1954. The law authorized the Government to make agreements for the sale of farm products for foreign currency, to make shipments for emergency relief, and to barter farm products for strategic materials required by our Government.

PL 480 proved to be of major importance in disposing of farm products abroad and in aiding the economies of developing countries. In fiscal years 1954 through 1958, exports under Public Law 480 accounted for 27 percent of total farm exports. During the 1950's exports of farm products to nations abroad reached higher levels than ever before in our history.

Soil banks. Despite the contribution of PL 480 programs in reducing crops in storage, the problem of surpluses still remained. In 1956 the Soil Bank Act was passed as a part of the Agricultural Act of 1956. It provided for a program of annual acreage diversion in its Acreage Reserve and a longer term, 3- to 10-year land retirement in a Conservation Reserve Program. The Acreage Reserve Program ended in 1958.

On July 15, 1960, nearly 29 million acres were under contract in the Conservation Reserve. Most of the contracts expired during the 1960's, but some did not expire until 1972.

Acreage allotments ended. The Agricultural Act of 1958 gave corn producers the opportunity to vote on a new program which discontinued acreage allotments and made price supports available to all producers at 90 percent of the average price during the 3 preceding calendar years—but in no event at less than 65 percent of parity. A majority of the growers voted in favor of this alternative and acreage allotments for corn were discontinued with the 1959 crop.

Under other provisions of the Act, cotton producers were given a choice of supports for their 1959 and 1960 crops based on two different acreage allotments. In 1961 growers were to return to a single no-choice program

Farmers crowd around a counter to apply for price support loans and Government aid in the 1930's.

with the range of support set at 70-90 percent of parity. For 1962 and subsequent years the range of support was to be set at 65 to 90 percent of parity.

New price supports. Under the Act of 1959 price supports for most feed grains became mandatory. Although acreages planted were limited, new agricultural technology increased production at a rate faster than it could be absorbed by the market—even with a growing population and increased sales under PL 480.

Legislation continued to make innovations during the 1960's. Among them: discontinuance of provisions for wheat marketing quotas, elimination of the 55 million-acre minimum national allotment for wheat, introduction of a certificate program for wheat (a program for direct payments to bring returns to farmers on the part of their crop consumed domestically up to parity), provision for acreage-poundage marketing quotas for tobacco, diversion of acreage in a cropland adjustment program, and lowering the loan rate to encourage exports while making up the difference by payments.

Looser controls. The Agricultural Act of 1970 discontinued crop-by-crop acreage allotments and marketing quotas for wheat, feed grains, and upland cotton. To receive price supports the farmer was required to keep a specific percentage of his cropland out of production. He could then grow whatever he wished on his remaining land except for crops that remained under control because of earlier legislation. These crops included sugar, rice, peanuts, tobacco, and extra-long staple cotton. Payment limitations were established for the first time. On April 14, 1971 an amendment provided for poundage quotas for burley tobacco in lieu of acreage allotments.

Worldwide demand. By 1973 the demand for American farm products was at a high level due to world crop shortages and worldwide inflation. World demand, combined with export subsidies and the devaluation of the dollar, had liquidated the stocks that had been built up under previous price support programs.

The Agriculture and Consumer Protection Act of 1973 placed its emphasis on production to respond to "ever-growing, worldwide demand for food and fiber." Secretary Butz declared that the legislation represented "an historic turning point in the philosophy of farm programs in the United States." The fundamental difference was its emphasis on maintaining or increasing production in contrast with the earlier programs to curtail production of wheat, feed grains, and upland cotton.

Target price levels. A new concept was introduced under which supports were to be used only when market prices fell below target price levels. Payments were not to be made as they had been in earlier programs when market prices were high. An escalator clause allows for adjustments of target prices in 1976 and 1977 to reflect changes in farm production costs. Payments, if used, are to be limited to $20,000 per person.

The Act also authorized "disaster" payments if eligible producers were prevented from planting any portion of allotments because of drought, flood, or natural disaster, or events beyond their control. Payments were to be available when natural disaster prevented a farmer from harvesting two-thirds of his normal production of the allotment crop. Loan levels were to be set below expected market prices to put greater reliance on the marketplace.

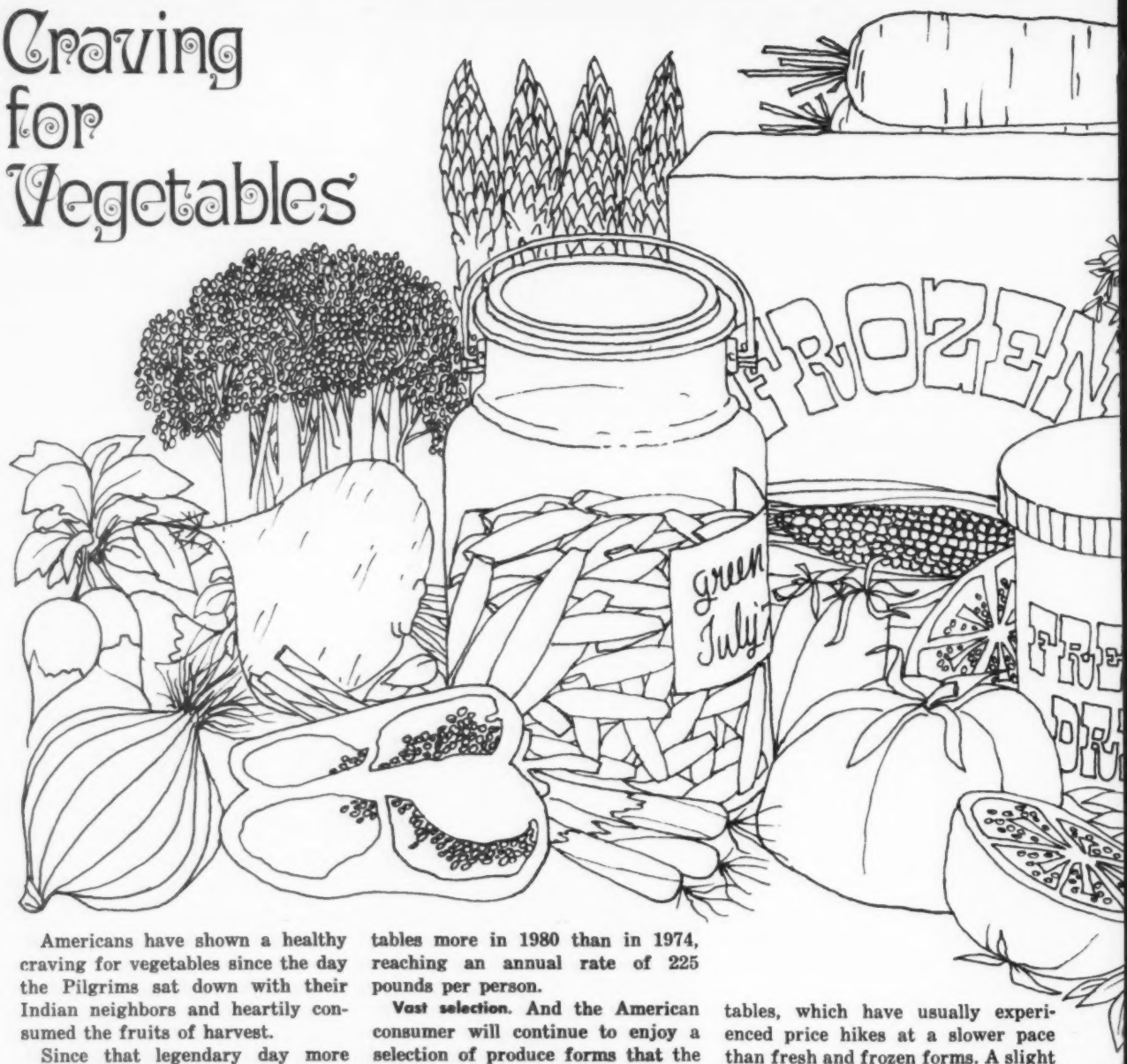
Law extended. Although there were virtually no surpluses, PL 480 was extended for an additional 4 years.

If the current high foreign demand for agricultural commodities should not continue, or if another technological explosion occurs, the Secretary can use standby authority to support prices and to limit total acreage planted to major crops.

[Based on special material by Gladys L. Baker, National Economic Analy. Div.]

Workers at a North Dakota grain storage facility are sealing wheat reserves to bolster sagging prices.

Craving for Vegetables



Americans have shown a healthy craving for vegetables since the day the Pilgrims sat down with their Indian neighbors and heartily consumed the fruits of harvest.

Since that legendary day more than 350 years ago, small pioneer garden plots have grown into millions of acres of vegetable crops in the 1970's.

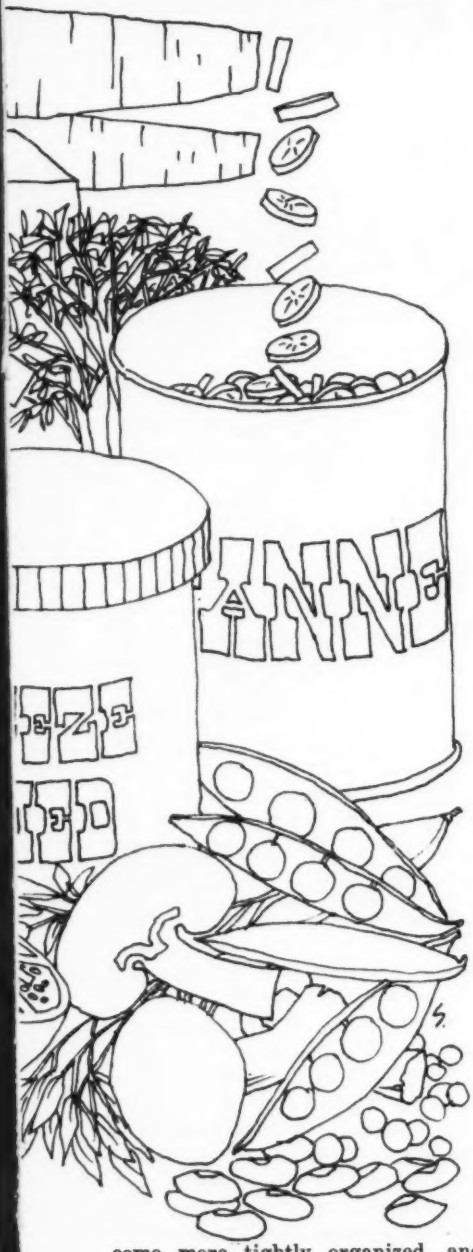
Moreover, America's culinary love affair with vegetables shows no signs of abating, with individual consumption expected to reach even higher levels by 1980.

An ERS study of the vegetable industry projects that the average American will eat 5 pounds of vegetables more in 1980 than in 1974, reaching an annual rate of 225 pounds per person.

Vast selection. And the American consumer will continue to enjoy a selection of produce forms that the Pilgrims never dreamed of: the vegetables will come fresh, frozen, canned, or prepared in new convenience forms.

Although the consumer may be primarily concerned with price, availability, and convenience packaging, the vegetable industry is expected to do far more than meet supply needs. Among key projections for 1980 are:

- Increased use of canned vegetables, which have usually experienced price hikes at a slower pace than fresh and frozen forms. A slight increase in frozen vegetable use is also expected, as fresh vegetable use remains stable.
- New processing techniques may affect the market. Aseptic barreling and continuous process freeze-drying are the most significant new preparation methods on the horizon.
- Western States will dominate the supply and processing of vegetables even more by 1980.
- The vegetable industry will be-



come more tightly organized, and many of the agreements which now exist between major buyers and suppliers will become even more formalized.

But the consumer will still have the last word in determining what the vegetable industry will produce.

In recent years, the consumer has "ordered" a production increase, as population swelled and per capita consumption headed uphill.

Overall, per capita use steadily climbed from an average of 200 pounds a year from 1947 to 1949, to 220 pounds in 1974. In raw volume, the increase was from an annual average of 29 million pounds in 1947-49 to 46 million pounds last year.

Tied to economy. ERS researchers stress that vegetable consumption may be generally tied to the economy. Vegetable consumption goes up with personal income.

However, vegetables may be used as "meal stretchers" as high meat prices force many families to switch to casseroles. Tomato-based products are also often used in budget meals.

This relationship between the economy and vegetable use is seen in an abnormal occurrence in 1973. Many Americans hoarded canned goods in anticipation of rising food costs, so that may have inflated consumption figures for that year to high levels.

Besides flashing production signals to the industry, consumers dictate the forms in which the vegetables are to be supplied.

Fresh vegetables. For many years, fresh vegetable consumption declined steadily, as consumers preferred easy-to-cook processed foods. Fresh vegetable use dropped from 121 pounds per person in 1947-49 to 101 pounds last year. At the same time, the combined per capita consumption of canned and frozen vegetables shot from 79 pounds to 119.

In recent years, however, the decline of fresh vegetable use has stabilized. Since 1965, consumption has held steady between 98 and 101 pounds a year. The 1980 projection is 97 pounds. As a further indication that the fresh vegetable decline has about run its course, only sweet corn and snap beans, among vegetables that must be cooked, are still being purchased in quantities as fresh vegetables.

Frozen vegetable use has been cramped somewhat by the recession. Many frozen vegetables are in specialty food forms, such as peas with almond slivers, that command higher prices. Consumers avoid such "luxury" items. The expected business recovery may signal an upswing for these specialties.

Some vegetables may be processed into several different products. A tomato, for instance, may be canned whole or made into catsup, paste, or sauce.

Aseptic barreling. In the past, the processor has had to decide on which product to make when the raw tomatoes came in, anticipating the market. Now, a new processing technique may help defer that decision: aseptic barreling.

In that process, the tomatoes are partially concentrated into paste form. The paste is sterilized and poured into sterile, glass-lined barrels. The processor can then wait to see how the market develops before finally committing his product to a form. The paste can be reworked into any of several tomato products.

Still another processing development is the new continuous process freeze-drying. Although freeze-drying has long been known, it has only been used for limited batches at a time because of icing problems. The batch processing entails high production costs.

Fruit juices. With continuous processing, it probably will become more economical to freeze-dry more products. Natural fruit juices may be the next line to take this form.

Besides the technological advances, vegetable processing is undergoing other adjustments: the continued trend toward fewer but larger processors.

The number of fruit and vegetable canners has dwindled since 1958. In 1967, more than 1,200 canning firms operated, compared with about 1,000 in 1972. Value added to the price by manufacturers increased by 13 percent during this period.

The tomato industry is especially affected by this trend. Firms processing tomatoes dropped from 177 to 124 during 1970-74, a 30-percent decline, while total production increased a third.

(Continued on page 15.)

Roots of History

Christopher Columbus had hardly set up housekeeping on Isabella Island in 1493 when he began a New World fad that has been going strong ever since.

Although Columbus was a bit confused in his navigation—he thought he was in India—he knew good vegetables when he saw them.

So, he proceeded to become the first European to start a home vegetable garden in the New World.

When he returned to Spain, Columbus naturally brought along some prized vegetables from that garden that included two tasty specimens that were alien to the Old World: beans and peppers.

From this modest beginning, New World vegetables soon spread to Old World tables, as other explorers supplemented the new diet with such delicacies as corn, squash, pumpkins and potatoes.

While Columbus received all the accolades for the discoveries, the hard-working Indians did all of the cultivating. As Europeans gingerly nibbled at their first peppers, the Indians continued to raise the plants that had been around for generations.

Even the American Indian sometimes overlooked a promising crop. In the fields of corn, a squat green plant grew, producing a red, juicy fruit.

Although the Indians ate the "tomati," as they called it, they considered it a minor crop, hardly worth fooling with, since it couldn't be preserved.

European settlers in America also treated the tomato contemptuously. In England, they were raised only as ornaments. In America, everyone was afraid to eat them.

Finally, at the end of the 18th century, the more astute Italian farmers began to grow tomatoes as a food, but Americans weren't ready to bite into the red vegetable until about 1850.

In defense of the American consumers, when they did get around to eating tomatoes, they did it in a grand fashion. Last year, more than 7 million tons of tomatoes were processed in the U.S. to satisfy the nation's craving.

Getting back to Columbus' garden, the Indians gave the explorer a head start in the cultivation of peppers. Columbus found peppers that had

already been so improved through cultivation that all major types now used were already Indian staples.

Another vanguard of Europeans, the Pilgrims, had a legendary affinity for still other native American vegetables: pumpkins and squash. Indians had long cultivated these members of the cucurbit family. Archeologists have found seeds and fragments in prehistoric southwestern Cliffdweller digs, indicating that these and other early farmers grew them.

Mankind's appetite for vegetables far predates European settlements in the New World.

Earliest civilizations popped up in regions where root vegetables originated, thus creating the chicken-and-egg speculation of whether man domesticated the vegetable, or whether the vegetable domesticated man.

References to vegetables reach back into man's earliest recollections.

According to one authority, the Children of Israel complained to Moses that, among other things, they missed the delicious Egyptian onion that they had left behind as they fled slavery.

Kale and collards are mentioned in the writings of Theophrastus in 350 B.C., and again by Pliny the Elder (23-79 A.D.).

Ancient Romans and Greeks wrote about peas. Cucumbers were mentioned in early Egyptian records.

The eggplant has also been around a while. Chinese writings 1,500 years ago referred to it.

For salad lovers, the wild cabbage, ancestor of many leafy vegetables, is at least 4,000 years old. It may have originated in Coastal Europe and North America. Lettuce, which began in India and Central Asia, is one of the earliest vegetable crops, as is celery.

While primitive man performed much of the spadework to develop vegetables, modern man has ingeniously applied the fruits of ancient agriculture to gourmet delights.

Even in their wildest dreams—perhaps after eating some members of the cucurbit family—the early American Indian farmer couldn't have imagined that "tomati" could be somehow applied to hotdogs and hamburgers, or, that his cherished pepper would be mixed with "tomati" to smother an Italian pizza.

(Continued from page 13.)

Fewer processors. In frozen vegetable production, 650 firms processed frozen products in 1963, compared with 634 in 1972.

In still another processing shift, the industry has been migrating westward to States such as California, where vegetable production is steadily gaining. California now claims about half the production of processed vegetables.

California and other West Coast States, together with the Rocky Mountain region, account for 55 percent of all fresh vegetable output. California alone produces 78 percent of the West's production.

In the South Atlantic region, Florida is predominant, with three-fourths of that area's production. Texas leads in the South Central region, Michigan in the North Central, and New York in the North Atlantic, although New York is declining.

Foreign competition. In some production areas, foreign imports provide stiff competition. Florida's important winter and spring tomato crop has battled with Mexican imports for the U.S. market.

Mexico enjoys cheaper labor and a practically frost-free climate. Florida growers are countering by switching to the packing of mature green tomatoes, using improved varieties and better cultural techniques.

Both Mexico and Florida are expected to continue supplying winter and spring tomatoes into 1980, with each holding its share of the market. However, a new wrinkle could enter the picture if Cuba is allowed to sell vegetables to the U.S. Cuba could provide strong winter and spring tomato competition for both Florida and Mexico.

Fewer marketing firms. On the domestic end of marketing, increased organization is expected. Fewer and fewer firms will control vegetable marketing into the 1980's. A major reason is the increased organization in moving fresh vegetables over long distances.

A half century ago, vegetable suppliers were located near major cities in the East. Today, most vegetables come from the West. Although informal agreements between large buyers in the East and large suppliers in the West are hardly new, ERS researchers suggest that a trend to formalize such agreements may be coming in the form of integrated membership on boards of directors.

In this form, a member of a board of directors of a large retailer may hold a large number of shares in a food supply firm and sit also on that firm's board of directors.

Sole supply source. Another form of control occurs when one big supplier becomes the sole source of supply for a food chain's market needs for one or several vegetable crops.

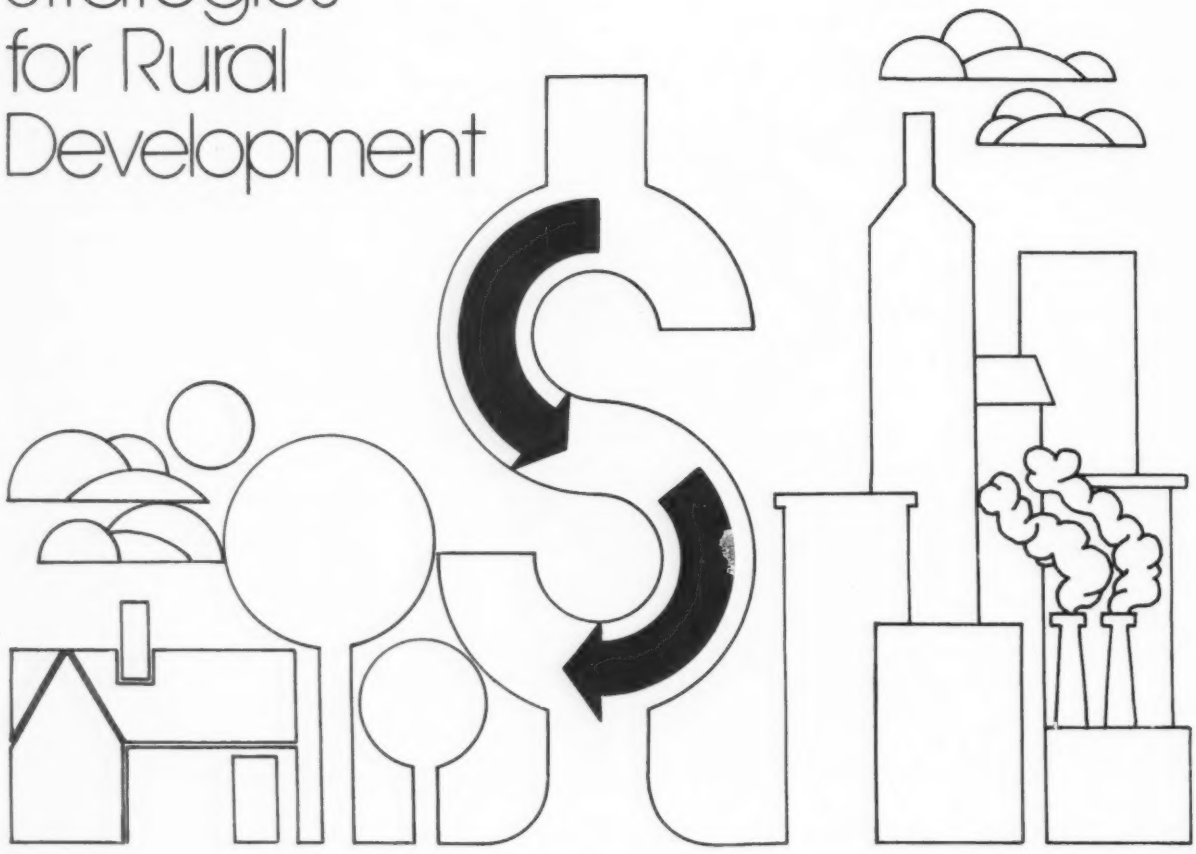
In a similar development, processing vegetable growers are also becoming more organized. Years ago, a purchaser could approach them individually, playing them off against one another to beat down the prices.

Now, many grower-processors have formed organizations to bargain collectively with purchasers to fetch a higher price. Such groups have had a mixed success. This doesn't reflect on the growers' know-how, but it does emphasize their weaker position in the marketplace.

Complex industry. The increasing complexity of the business side of vegetable production and supply indicates that the vegetable industry may be even more industrial by nature than many other forms of agriculture.

[Based on article in *The Vegetable Situation*, TVS-197, "The American Vegetable Industry in the 1970's," by Charles W. Porter, Commodity Economics Division.]

Strategies for Rural Development



Since 1970, rural America has enjoyed lively gains in population, employment, and income.

ERS economists believe these important new trends, if continued, may provide an economic basis for closing the age-old income gap between urban and rural areas.

The key to this improvement may be found in four changes observed in economic development in nonmetro areas:

- Increased participation of rural people in the labor force.
- New jobs created within commuting distance of rural Americans.
- Increased productivity of rural workers.
- Increased accumulation of capital per worker in rural areas.

The study measured the importance of such changes in the rural economy by comparing recent data on rural population, income, and employment with trends extrapolated from the decade of the 1960's.

Computer model. Those trends were estimated with the aid of a detailed model of the 1960-70 economic structure. That model projected a gradual improvement in the economic well-being of the rural sector. It permitted examination of seven alternative economic development strategies to accelerate rural development.

Projection of population, income, employment, and capital investment trends from 1960-70 suggested that the rural and urban economies were gradually approaching economic comparability. ERS researchers identified factors responsible for the change and sought an overall approach to accelerate the growth of rural areas.

In a key finding, the study emphasized the need to carefully mix the development strategies and coordinate them to avoid adverse side effects.

Undesirable side effects. When pursued separately, each strategy could achieve the goal of contributing to the closing of the economic gap. Yet,

undesirable side effects invariably occur when the individual strategy is pursued alone.

A strategy to increase the willingness of rural people to join the labor force would enhance family income, if people seeking jobs could find them. For example, with day-care centers for children, more rural women would be encouraged to enter training programs in order to seek jobs.

Yet, without the creation of more jobs in the rural area where they are needed, this would simply increase the already excessive labor force seeking scarce available jobs. The upshot would be accelerated outmigration, which many consider to be undesirable.

New jobs. So, a second strategy must be added to offset the side effects: creation of new jobs within reach of rural people who seek employment.

When coordinated with labor force participation, this strategy is an attractive alternative, but when pursued separately, it can have drawbacks. New jobs may cause some people to migrate into the depressed area to compete with local people for these jobs, for example.

An increase in productivity among rural workers who already have jobs should enable them to earn higher wages. This was a particularly strong factor in rural economic development in the 1960's. On-the-job training programs provide a key tool toward this means. This may add to the income of those already employed, but there may also be side effects of increased unemployment and reduced labor force participation.

Capital accumulation. A fourth strategy, an increase in the accumulation of capital in rural areas, would bolster the area's economic base. But, by itself, capital accumulation requires heavy investments for relatively small returns.

Capital accumulation was found to be an important component in the mixed strategy to reach rural development targets in 1990. However, data are not yet available to measure how important this factor was in the growth observed since 1970.

The researchers used a single goal with which to measure the effectiveness of single strategies: achieving higher nonmetropolitan income per capita levels. However, as they set more goals to overcome side effects, they introduced mixed strategies.

Strategy mix. A computer model was created to test various strategies individually and collectively, and to determine an effective mixed strategy. The model found that for nonmetro areas to match the per capita incomes of metro areas by 1990, the inclination of nonmetropolitan people to join the labor force, as measured by a parameter in the computer-based economic model, must be increased 36 percent above the value estimated for 1960-70, while the rate of growth of new jobs for the unemployed must be increased by 19 percent above the 1960-70 value.

Reaches goals. This combined strategy reached the 1990 goals, but there were still a few adverse side effects, including a decline in productivity and decreased utilization of plant capacity. This mixed strategy contributed only moderately to the abatement of outmigration. Other elements of the mix, then, dealt primarily with shoring up the performance of these two primary strategies. It was found that strategies related to productivity and capital accumulation eliminated the undesired side effects. Other strategies related to expanding exports, limiting population growth, and directly influencing migration patterns were examined but not used in the recommended mixed rural development strategy.

Results compared. With a working computer model based on detailed observations for 1960 and 1970, the researchers then compared results of that model with the partial data available concerning the rural economy between 1970 and 1973.

An encouraging finding of the comparison is that changes treated as strategies in the model are already occurring in many nonmetro areas. They are being implemented by Federal, State and local agencies as well as by the private sector.

Per capita personal income increased almost 10 percent per year for nonmetropolitan areas from 1969 to 1973, compared with about 7 percent for urban areas.

In 1973 and 1974, nonmetropolitan unemployment was actually lower than metropolitan unemployment.

About 60 percent of the rural population participated in the labor force in 1973 and 1974. Urban participation in the labor force was 61 percent in 1973, and 62 percent in 1974.

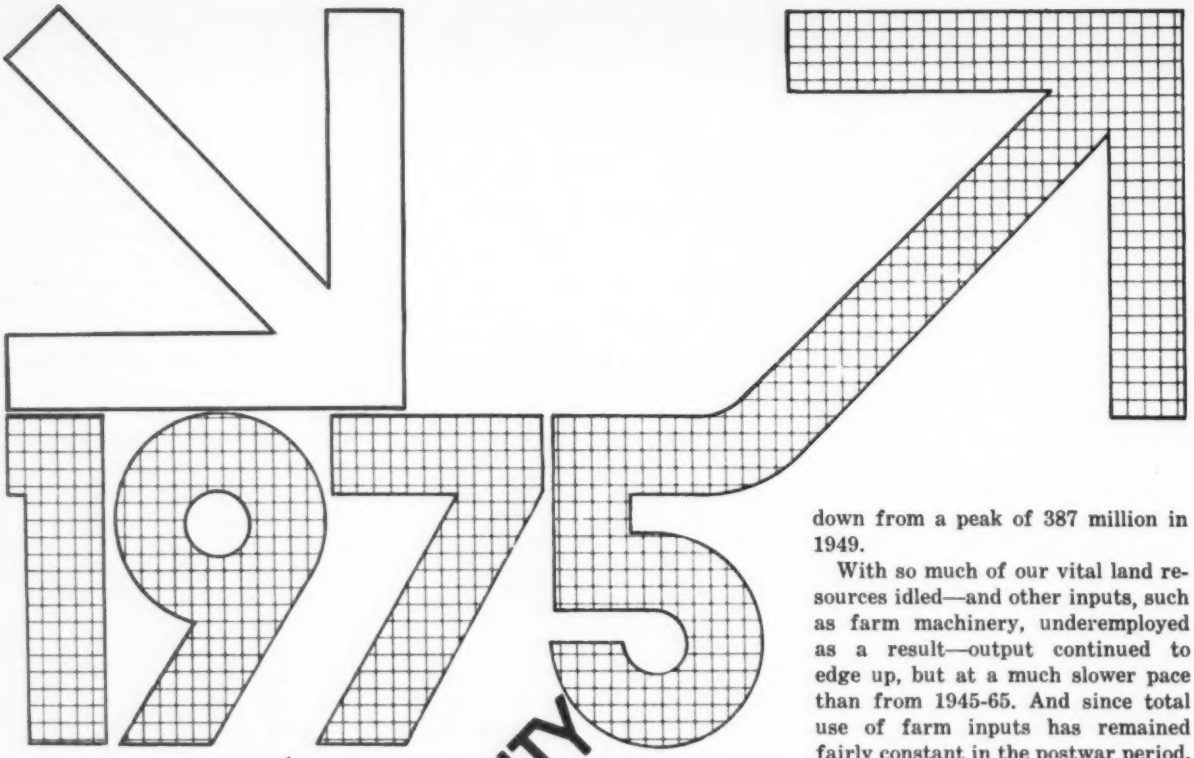
Reverse migration. Data from 1970-1973 suggest that 170,000 net migrants per year are moving from cities to nonmetropolitan areas, reversing previous trends. While the computer model suggested that migration from countryside to the city should ease as rural economic conditions improve, the reverse migration was not fully explained by the computer model.

There may be some economic incentive not explicit in the model, such as a differential in the cost of living. And some people may be responding to noneconomic inducements including cultural and environmental considerations.

Recent gains in rural population, income, and employment are encouraging, but problems remain. Not all nonmetropolitan areas are sharing equally in the recent growth. There remain rural pockets of poverty, limited economic expansion, and outmigration.

Set of strategies. The study by ERS researchers of the economic structure of the decade of the 1960's points to a set of rural development strategies relating to labor force, employment, productivity, capital, markets, population, and migration, which, if carefully balanced and orchestrated, can maintain comparability between rural and urban growth and extend economic opportunity to slower growing rural areas.

[Based on the manuscript Alternative Futures for Nonmetropolitan Population, Income, Employment and Capital, by Clark Edwards, Economic Development Division, and Rudolph DePass, U.S. Department of Commerce.]



SNAPBACK FOR FARM PRODUCTIVITY

Say what you will about government programs—in the agricultural sector, they do make a difference. And the influence of policymakers is now showing up sharply in a major performance indicator—the farm productivity index.

After leveling off in the mid to late sixties, growth in farm productivity—or output per unit of all farm inputs—has bounced back in the seventies and the index is expected to score a record high in 1975. A prime reason for this recent upturn, says an ERS economist, is the shift in government agricultural programs since 1970, which has freed millions more acres for production. Also important, the change in focus has given farmers greater leeway to produce what they can produce best.

Idled land resources. This is quite a change from the 1960's, when persistent farm surpluses prompted acreage diversion programs for different crops. In that decade, total cropland used in farming fluctuated from 355 million acres to a low of 331 million, averaging about 335 million acres from 1965-70. Acreage was down from a peak of 387 million in 1949.

With so much of our vital land resources idled—and other inputs, such as farm machinery, underemployed as a result—output continued to edge up, but at a much slower pace than from 1945-65. And since total use of farm inputs has remained fairly constant in the postwar period, productivity moved sluggishly as well. From 1965-70, the farm productivity index appeared to stand still.

Year of change. But a remarkable thing happened between 1970 and 1971. After 5 years of creeping ahead at an annual rate well below 1 percent, total farm output soared upward by 10 percent in 1 year. Productivity shot up also.

What was so special about this time period? Widespread concern over world food shortages was still 2 years off in 1970, but the tiny corn leaf blight organisms had made their presence felt in force, slashing yields throughout the Corn Belt. Fear of spreading blight prompted policymakers to boost feed grain acreage for 1971.

However, the Farm Act that passed Congress in 1970 did more than up acreage allocations. It also gave farmers a green light to shift among crops. So if conditions looked better for corn than for soybeans, farmers could adjust their planting intentions to devote more acreage to corn than previously allowed.

Plus for productivity. As a result, land, machinery, and other farm resources have been put to fuller and more efficient use—a shot in the arm for the productivity index.

Of course, government programs affecting agriculture are hardly new. Various policies were also enacted in the earlier postwar years—when output and productivity rose at a brisk pace. Why wasn't farm productivity substantially affected?

Past farm policies. Like the most recent acreage diversion programs, the Soil Bank programs of 1956-59 also involved acreage control, but less acreage was affected, and the program ended before its influence on output showed up in the productivity index. Total cropland acreage during the Soil Bank years hovered around 355-360 million acres.

Prior to the Soil Bank program, price support loans were the major controls on production. To qualify, farmers were restricted from planting more acreage than some historical base. In contrast, the supply management programs of the 1960's not only pared down total acreage by more than 20 million acres from the levels of the Soil Bank period, they also set acreage limits for specific, high-value crops, such as feed grains, wheat, and cotton.

Promoting production. Since 1970, farm policies have encouraged full production for a world market, and use of cropland has generally been on the upswing. This year, economists estimate that 365 million acres will be harvested, and total farm output is expected to be 8 percent greater than last year's. Meanwhile, total use of farm inputs is expected to be up about 1 percent over 1974, resulting in an 8-percent boost in productivity.

The reason productivity varies so closely with output is the relatively constant use of total farm inputs in the postwar period. However, major changes have occurred in the composition of these inputs in the past 30 years, as farmers shifted away from labor to greater use of capital equipment and other purchased inputs.

More productive inputs. Because more efficient combinations of inputs have been used, they have become more productive over time. For example, before the 1940's, output increases were largely due to the physical increase in input use. Since then, output has risen in response to the changing input mix—and the technological developments that sparked these changes—even though total input use has varied very little.

So the direction of government programs is not the only influence on farm productivity. More general adoption of technological advances is a major determinant of productivity boosts, as the 1960's did not usher in any really significant scientific breakthroughs to counter production controls.

Falling with the weather. A steady stream of improved farming methods did continue, however, and these acted to buttress the index in its more sluggish periods. But in any one year, bad weather or widespread disease and insect infestations can cause productivity to sag.

Such was the case in the corn blight year of 1970, and again in 1974, when drought shriveled feed grain yields in the Corn Belt and Plains States.

Other explanations for spurts and dips in the productivity index have to do with structural changes spurred by new agricultural technology.

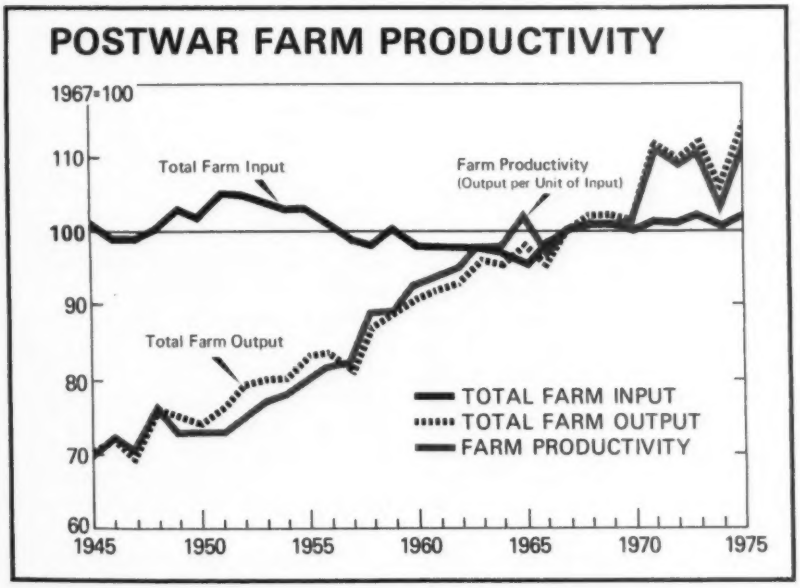
Larger, specialized farms. One such change involves economies of size and enterprise specialization. Years ago, farm operations were highly diversified, but today, farmers are concentrating on fewer and much larger crop or livestock enterprises. Now many one or two-enterprise farms exist where there were formerly three to five enterprises.

And with the spread of sophisticated machinery, farm sizes have expanded as their numbers have declined—stretching from an average 195 acres in the 1940's to about 390 in the 1970's.

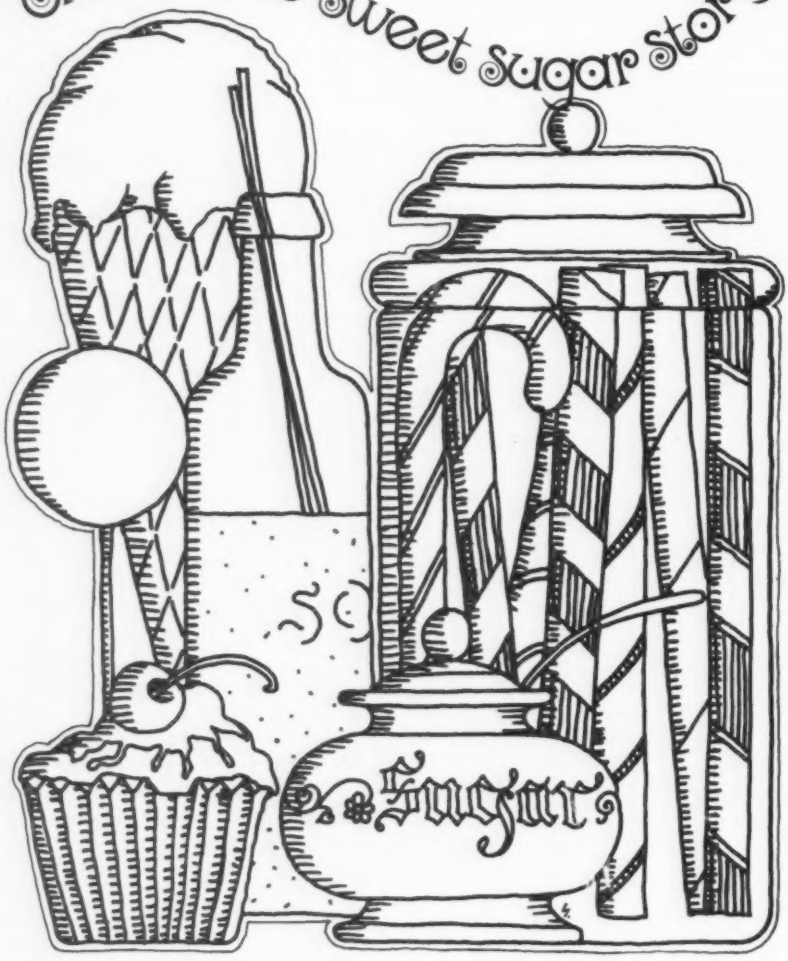
Specialization and growth are aided, of course, by the ready availability of purchased inputs and custom services. Just 40 years ago, farmers were still providing most of their production needs—horsepower (and its feed), clover rotations for soil fertility, livestock feeds, crop seeds, and workers.

Big buyers. Now farmers are buying many more of these goods and services from others—as they must if they are to utilize modern agricultural technologies.

[Based on special material from Donald D. Durost, National Economic Analysis Division.]



The not-so-sweet sugar story



Anyone with a sweet tooth is bound to be longing for the good old days of low priced sugar. But those days may be pretty much behind us, say ERS sugar analysts. Instead, the seesawing sugar prices set in motion are likely to continue for some time to come.

Things got off track noticeably last fall as retail sugar prices bounded to record highs, then fell in the spring of '75. And just when the consumer was about to breathe a sigh of relief, prices strengthened in midsummer.

Sweets go up. Prices for sugar in the bag were not the only ones that jumped up last year. Prices also shot up for sugar-containing products, such as soft drinks, bakery goods, ice cream, candy, and canned fruits.

Though prices have dropped slightly for some of these items, they are still higher than current sugar prices would dictate. Reason is the lag in processing. Many of the products you're buying now contain sugar that cost the manufacturers a pretty penny sometime back. Also, increased processing costs have taken up a greater share of the price tag than usual.

American consumers have registered their discontent by buying less. In fact, total sugar consumption dropped half a million short tons last year and is expected to be down again this year by a million tons.

Although nutritionists may be happy that we're eating less sugar, some people aren't. Such as bakers, for instance. With soaring ingredient costs—sugar as well as others—and a sagging market, many small bakers have been forced out of business. And U.S. cane and beet producers and processors have seen high prices slide back as a result of decreased demand.

Behind the scenes. What led to the demise of stable sugar prices? The answer, as is often the case in our intricate food marketing system, is not simple. Furthermore, the problem is not confined to the U.S.—it is a worldwide one.

It all goes back to the economic theory of supply and demand. In other words, when supply and demand get out of balance, prices react. That's basically what happened with sugar—demand outstripped supply, and prices shot up.

During the past 5 years, the world has seen a rising affluence, despite inflationary trends and recessions. Along with rising incomes, many governments have taken steps to improve standards of living for their people. As a result, more people throughout the world have been eating more sugar. In fact, sugar consumption has increased faster than population.

The impact on world sugar inventories has been dramatic. World stocks declined from 25 million short tons in 1970 to 17 million short tons in 1975. A level of about 20 million short tons is considered necessary to maintain a stable market.

Sluggish production. The lively demand for sugar came at a time of sluggish production in 1974. Bad weather reduced sugar beet production in Russia, Poland, Western Europe, the Philippines, and the U.S. In the U.S., high prices of competing crops, especially grains, also discouraged plantings.

Other factors were working against price stability too. One of these was

hoarding. As prices worked their way up, some smaller industrial users and consumers in the U.S. stockpiled to hedge against further price shocks. Also, while some importing nations overpurchased or hoarded sugar in a speculative move, certain exporting nations withheld a portion of their supplies for the same reason.

Here in the U.S., the situation was complicated by uncertainty over the expiration of the U.S. Sugar Act. The Act, designed to insulate U.S. sugar production from price fluctuations in the world market, expired at the end of 1974. Earlier in the year, a proposal for a new act was defeated in Congress.

Sugar legislation. Sugar legislation, such as in the Sugar Act, had been in effect in the U.S. since 1934, starting with the original Jones-Costigan Act. Its purpose was to (1) maintain a healthy and competitive domestic sugar industry of limited size; (2) assure adequate sugar supplies to consumers at reasonable prices; and (3) promote the general export trade.

Economists contend that the legislation did increase returns to U.S. sugar producers but also increased the cost of sugar to U.S. consumers. It can also be argued that the legislation may have contributed to low world sugar prices which inhibited the development of world productive capacity during the late 1960's and early 1970's.

This lack of development contributed significantly to the tight world supply conditions of the past 2 years. Therefore, while sugar legislation worked "well" during periods of surplus, it was much less effective during periods of tight world supplies such as in 1974.

Nevertheless, many producers and processors are afraid that the absence of a Sugar Act will lead to volatile prices and greater uncertainty. Also, some sugar-exporting countries would like to have the U.S. as an assured market, with quota contracts as under the old legislation.

Free market projections. Since new sugar legislation doesn't appear imminent, ERS has looked into what could be expected under a free market.

Price projections under free market conditions suggest that world sugar prices will remain at relatively high levels—10 to 30 cents per pound of raw sugar—to 1980, although U.S. prices might be more variable than in the past. Unpredictable factors which could cause world prices to go up or down include weather conditions, "breakthrough" technology, changes in marketing, and governmental actions.

If world prices were to fall appreciably, say to less than 10 cents a pound, domestic producers could suffer heavy losses and might even be forced out of business. Since domestic production accounts for a little over half of our sugar consumption, some sort of special protection might be proposed in the future. Options might include: (1) an international sugar agreement with a minimum price at or above the target price, (2) a fixed tariff, (3) supply management with quotas, or (4) direct compensatory payments to producers.

Larger crop expected. Actual world conditions point to a larger sugar crop this season than last, although the potential output has been dampened somewhat by bad weather. The 1975/76 world sugar crop will likely be 4 to 6 million tons larger than a year earlier, with most of the prospective increase coming from expanded acreage.

Problems of bad weather have been worldwide. Drought in the U.S.S.R., the Caribbean, and Central America are threatening sugar beet and cane crops. Snow, frost, and freezing winds have damaged sugarcane in Brazil and other areas of South America. In the U.S., the Red River Valley beet crop was hit by floods in early July.

Despite the plight of sugar beets in the Red River Valley, U.S. beet production will be up sharply—possibly 27 percent over 1974, to a total of just over 28 million tons. Reasons are more favorable weather in the North Central growing area and substantial acreage expansion outside the Red River Valley.

U.S. sugarcane production is also looking up. A 14-percent increase is predicted over 1974, to a total of 28½ million tons. More acres were planted in Texas, Hawaii, and Florida, and their average yields are expected to increase. Only in Louisiana did acreage remain unchanged, with prospective yields dipping slightly.

Demand slows. Along with the predicted boost in worldwide production, the growing rate of demand for sugar has slowed. For the first time in the last 6 years, world consumption is expected to fall short of production this year—by half a million tons.

Consumption will probably slip in Japan, Canada, the European Community, and the U.S. Sugar intake here at home may be less than 90 pounds per person, down 7 pounds from 1974. If consumption does fall to this level, it will be the lowest since the sugar-short years during and after World War II.

In the U.S., competing sweeteners —particularly high fructose corn sirup (HFCS)—will be picking up some of the slack in sugar consumption and may well have an impact on sugar prices.

HFCS moving in. HFCS, which has historically cost less than sugar, has been capturing an increasing share of the sweetener market. It can be substituted or mixed with sugar in processed products where wetness is desirable—such as in soft drinks, canned fruits, ice cream, and some bakery products. Particularly with lower predicted corn prices, HFCS has a competitive advantage in these areas, but is held back mainly by availability. Currently, plants producing HFCS are operating at peak capacity, and although some new plants are being built, it will probably be awhile before capacity catches up with demand.

[Based on special material from Fred Gray, Commodity Economics Division.]

Recent Publications

Effects of Changes in Vertical Coordination on Pork Production and Prices. Richard Crom, Commodity Economics Division, and James Sullivan, formerly with National Economic Analysis Division. AER-303.

The performance of the hog industry under the existing vertical coordination structure is projected from 1973 through 1985. Seven alternative situations are also introduced into the model: (1) increased output through addition of several "hog factories," (2) production contracts, (3) a shift in industry structure to large production units, (4) the addition of a price incentive to large production units, (5) stop-loss contracts, (6) pricing on the basis of pork values, and (7) a marketing contract for quality production with an appropriate market incentive.

Prices and Spreads for Selected Fruits Sold Fresh in Major Markets, 1967/68-1973-74. Alfred J. Burns and Joseph C. Podany, Commodity Economics Division. AER-295.

Prices and spreads are given for four types of apples, California's lemons, grapes, and oranges, and Florida's grapefruit and oranges. All the fruits showed an increase in seasonal average retail price, shipping point price, and the total marketing spread during the study period.

The kole of Multicounty Development Districts in Rural Areas. Gerald Doeksen, O. W. Holmes, John Kuehn, Leon Perkinson, and Stan Voelker, Economic Development Division. AER-307.

Multicounty development districts or planning organizations can play an important role in the development of nonmetropolitan areas, as shown by a study of 10 such groups in 6 States. These organizations can provide services and expertise usually available to large cities but beyond the financial and technical/professional resources of small towns and rural areas.

Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1664–So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by (*) may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.

Trends and Patterns in Soybean Oil Use for Food and Industrial Products. George W. Kromer, Commodity Economics Division. ERS-611.

An overview of soybean oil use, this report points out that soybean output and consumption have sharply increased over the past decade. However, it notes that world demand has eased somewhat this year due to recessionary forces and increased competition from other oils and fats. The report also compares soybean oil consumption and use with other major fats and oils.

Report of Task Force on Farm Income Statistics. Unnumbered report, January 1975, Economic Research Service.

A task force of nine members—from Government, universities and a private foundation—present their review of the overall procedure of estimating farm income statistics. They evaluate the quality and relevance of data used, as well as compare the current procedure with alternatives. In addition, they suggest how to improve accuracy in estimating.

The Cheese Industry. Harold W. Lough, Commodity Economics Division, AER-294.

Based on a national survey of 225 cheese plants, this report focuses on the structure and organization of cheese manufacturing and distribution. Emphasis is placed on factors affecting the industry such as Government regulation, economic signals, technology, dairy business policies, and competing products, and on special areas of concern such as whey disposition. Trends in production, imports, stocks, and prices are included.

Special Briefing on Food Supplies and Food Prices. Economic Research Service.

USDA economists take a look at four main topics of concern: (1) World Food Situation; (2) How Much Grain and Meat Will We Have?; (3) Farm Price Developments; and (4) What Is Likely to Happen to Food Supplies and Prices? The 16-page report is illustrated with 8 graphs and 2 tables.

The Bill for Marketing Farm-Food Products. Terry L. Crawford and Andrew Weiser, National Economic Analysis Division, ERS-20.

The marketing bill—an estimate of all costs and profits incurred in transporting, processing, and distributing farm-food products—totaled $92 billion in 1974, up 12 percent over 1973. This publication gives a breakdown of the cost components and the effect each one had on the total marketing bill. Major ones were labor, half the bill; packaging materials, almost one-eighth; and transportation, 7 percent.

Perspectives on Prime Lands. USDA Committee on Land Use.

This publication is a collection of papers from USDA's Seminar on the Retention of Prime Lands. Nine papers are presented, with three or four reviews of each one. Topics range from demands on the land to produce more food and timber to the political and economic forces affecting land use. The authors and reviewers represent a spectrum of viewpoints — universities, private groups, and public agencies.

Economic Trends

Item	Unit or Base Period	1967	1974 Year	1974 July	1975 May	1975 June	1975 July
Prices:							
Prices received by farmers	1967=100	—	184	176	178	182	187
Crops	1967=100	—	214	206	189	192	199
Livestock and products	1967=100	—	164	156	171	176	180
Prices paid, interest, taxes and wage rates	1967=100	—	169	168	183	185	186
Family living items	1967=100	—	161	161	175	176	178
Production items	1967=100	—	172	171	187	190	190
Ratio [1]	1967=100	—	109	105	97	98	101
Wholesale prices, all commodities	1967=100	—	160.1	161.7	173.2	173.7	175.7
Industrial commodities	1967=100	—	153.8	157.8	170.3	170.7	171.2
Farm products	1967=100	—	187.7	180.8	184.5	186.2	193.7
Processed foods and feeds	1967=100	—	170.9	167.6	179.0	179.7	184.6
Consumer price index, all items	1967=100	—	147.7	148.0	159.3	160.6	162.3
Food	1967=100	—	161.7	160.5	171.8	174.4	178.6
Farm Food Market Basket: [2]							
Retail cost	1967=100	—	161.9	159.7	169.1	172.9	178.8
Farm value	1967=100	—	177.6	172.6	182.1	190.8	200.2
Farm-retail spread	1967=100	—	152.0	151.6	160.9	161.6	165.2
Farmers' share of retail cost	Percent	—	43	42	42	43	43
Farm Income: [3]							
Volume of farm marketings	1967=100	—	111	110	91	96	117
Cash receipts from farm marketings	Million dollars	42,817	93,521	7,395	5,750	6,284	7,900
Crops	Million dollars	18,434	52,097	4,168	2,056	2,674	4,200
Livestock and products	Million dollars	24,383	41,424	3,227	3,694	3,610	3,700
Realized gross income [4]	Billion dollars	49.9	101.1	—	—	96.1	—
Farm production expenses [4]	Billion dollars	38.3	73.4	—	—	75.6	—
Realized net income [4]	Billion dollars	11.6	27.7	—	—	20.5	—
Agricultural Trade:							
Agricultural exports	Million dollars	—	21,994	1,632	1,496	1,390	1,532
Agricultural imports	Million dollars	—	10,247	898	688	827	762
Land Values:							
Average value per acre	Dollars	[6] 168	[7] 339	—	—	—	[8] 354
Total value of farm real estate	Billion dollars	[6] 181.9	[7] 355	—	—	—	[8] 370
Gross National Product: [4]	Billion dollars	793.9	1,397.4	—	—	1,440.9	—
Consumption	Billion dollars	492.1	876.7	—	—	938.6	—
Investment	Billion dollars	116.6	209.4	—	—	148.1	—
Government expenditures	Billion dollars	180.1	309.2	—	—	338.1	—
Net exports	Billion dollars	5.2	2.1	—	—	16.2	—
Income and Spending: [5]							
Personal income, annual rate	Billion dollars	629.3	1,150.5	1,159.5	1,214.3	1,244.1	1,238.9
Total retail sales, monthly rate	Million dollars	26,151	44,815	46,356	48,124	48,779	49,948
Retail sales of food group, monthly rate	Million dollars	5,759	9,980	10,090	10,875	11,023	11,345
Employment and Wages: [5]							
Total civilian employment	Millions	74.4	[9] 85.9	[9] 86.4	[9] 84.4	[9] 84.4	[9] 85.1
Agricultural	Millions	3.8	[9] 3.5	[9] 3.4	[9] 3.5	[9] 3.3	[9] 3.4
Rate of unemployment	Percent	3.8	5.6	5.3	9.2	8.6	8.4
Workweek in manufacturing	Hours	40.6	40.0	40.2	39.0	39.1	39.5
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	4.40	4.42	4.73	4.76	4.79
Industrial Production: [5]	1967=100	—	125	126	110	111	112
Manufacturers' Shipments and Inventories: [5]							
Total shipments, monthly rate	Million dollars	46,449	81,723	84,019	79,180	80,740	82,634
Total inventories, book value end of month	Million dollars	84,655	150,404	136,731	148,951	148,059	147,109
Total new orders, monthly rate	Million dollars	46,763	83,297	87,517	78,510	80,237	83,124

[1] Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2] Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. [3] Annual and quarterly data on 50-State basis. [4] Annual rates seasonally adjusted second quarter. [5] Seasonally adjusted. [6] As of March 1, 1967. [7] As of Nov. 1, 1974. [8] As of March 1, 1975. [9] Beginning January 1972 data not strictly comparable with prior data because of adjustment to 1970 Census.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale and Consumer Price Index).

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